

IV. REMARKS

The Examiner is thanked for the courtesy of a telephone interview on April 28, 2005 during which it was determined that claim 51 is not rejected as stated in section 4 of the office action, but as stated in section 7.

Claims 17-32, 34, 38, 40, 44-46, 47, 49 and 52 are rejected under 35 USC 103(a) as being unpatentable by Shadow Gestures in view of Easty.

It is a new and profound realization of the inventors to determine a correspondence between given alternatives and positions surrounding the user so that the user can use spatial memory to choose an alternative. Such a selection requires no displays and visual feedback. The selection is actually so ingenious and inventive that it is possible to misinterpret it as a simple invention, but the normal patentability criteria clearly demonstrate that it is not obvious: it is simply impossible to form a valid rejection by any combination of the known references, if the claimed invention is not impermissibly used as a blue print to arrive at the claimed invention using hind-sight. None of the references discloses or suggests the claimed invention nor motivates one to seek such a drastic change over the art.

The claimed invention fundamentally and totally differs from the prior art and even from the approach taken in the prior art. In particular, neither Easty nor Shadow Gestures discloses that positions corresponding to alternatives would be determined in respect of the user, irrespective of the location of the user.

Easty discloses an arrangement, wherein a display may present

rotating discs which represent menu information. There is no fixed relationship with given alternatives and the display left alone with a user. Easty also fails to even hint towards using body member movement detection for taking user input by an input device.

Shadow Gestures discloses detecting certain finger gestures from the shadow of a point light source falling onto a table by using an obliquely positioned camera. It is clear from the Fig. 2 system setup, that the detection of the finger gestures requires presentation of these so that the shadow falls onto the table. Hence, the user must show the gestures at a position independent of the user and dependent on the location around the user. This fully contrasts with the claimed invention. Further still, Shadow Gestures does not disclose or teach making any use of the actual position of the hand on top of the table. The camera system detects the shape of the shadow rather than its location so that there is no detection of alternatives such that one should correspond to a given part of the table. Notice, that the hand movements are not projected onto a display of the system, but instead a 3D model may be altered using the gestures detected.

Also consider that "determining the positions corresponding to each alternative in the space surrounding a user on the basis of their direction with respect to the user so that the locations of the positions remain substantially the same with respect to the user irrespective of the location of the user" as recited in the independent claims is not described in Shadow Gestures.

For example, in "determining the positions corresponding to each alternative in the space surrounding a user" - determination of positions of alternatives is not done, and

- alternatives are not in the space surrounding the user but alternatives are displayed on a flat screen.

As Examiner indicates, Shadow Gestures just only describes determining position and orientation of a hand and its shadow, see Office Action page 3, first paragraph.

In general, in Shadow Gestures a view/UI is on flat screen ahead of the user, whereas in the present invention a view/UI can be seen to surround the user in the space.

Further, the view/UI on the flat screen is manipulated by determining hand movements on a table, see Fig. 2 in Shadow Gestures,

- further, hand movements are not determined over the view/UI on the flat screen, and

- further, hand movements are not presented as hand movements on the screen.

Additionally, Examiner noted that Shadow Gestures describes "allowing the user to do a first movement of a member of the body to a position corresponding to an alternative the user desires". Actually, Shadow Gestures describes how a robot arm on a flat screen is controlled. This doesn't describe selection by a member of a body but a selection of robot arm controlled by a member of a body. Further, Shadow Gestures doesn't describe any alternatives corresponding to some positions, or selection of such alternatives.

Additionally, Examiner noted that Shadow Gestures describes "recognizing a second movement of a member of the body done by the user in the position corresponding to the alternative the

user desires". As stated above, there is no body movement in Shadow Gestures.

Concerning claim 45, the Examiner noted that Shadow Gestures describes "a three dimensional display device". Actually, Shadow Gestures describes a flat screen displaying a "3D fly through".

Since, as pointed out above, even if the references are combined, the result is not the present invention, the rejection of claims 17-32, 34, 38, 40, 44-47, 49 and 52 should be withdrawn.

Claim 48 is rejected under 35 USC 103(a) as being unpatentable over Shadow Gestures 3D in view of Easty, and further in view of Kumar.

Similarly, Kumar fails to disclose the above discussed features. Thus combining it with the first two references does not result in the invention of claim 48.

Hence the rejection of claim 48 should be withdrawn.

Claims 35-37 and 41-43 are rejected under 35 USC 103(a) as being unpatentable over Shadow Gestures in view of Easty, and further in view of Selker.

Also Selker fails to disclose the above discussed features. Thus combining it with the first two references does not result in the invention of claims 35-37 and 41-43.

Hence the rejection of these claims should be withdrawn.

Claim 51 is rejected under 35 USC 103(a) as being unpatentable over Shadow gestures in view of Easty, and further in view of Engdahl.

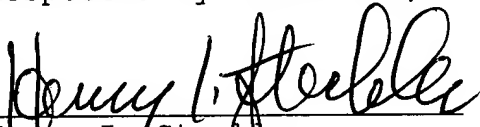
Similarly, Engdahl fails to disclose the above-discussed features. Thus combining it with the first two references does not result in the invention of claim 51.

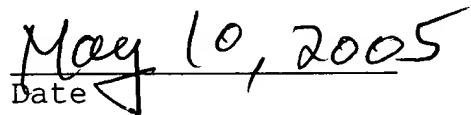
Hence the rejection of claim 51 should be withdrawn.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$200 is enclosed for an additional claims fee (4 extra claims). The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,


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